

Measuring and Managing Reputation Risk

Focus on Scenario Analysis & Stress Testing

PRMIA Presentation, 6 November 2008

AGENDA

We would like to focus today's agenda on presenting an approach to both identifying and monitoring past events and any early warnings and how those can be used to measure the risk of reputation in stressed scenarios.

- I. Introduction and background
- II. Reputation assessment and measurement
- III. Reputation risk measurement and stress testing

This presentation is made in conjunction with evolve24 who focus on identifying and tracking emerging issues and contributing to reputation risk management strategies. advantage has developed a proven system of calculating and monitoring reputation risk and financial indicators which uses statistical algorithms to model and project future state.

INTRODUCTION AND BACKGROUND | Why reputation risk management today?

Reputation risk has become a major concern of many organisations, particularly financial service providers, whose success remains highly dependent on their reputation. However, there are key issues and barriers in managing and measuring reputation risk.

The PRiM Risk Newsletter Number 13 (March 08) was dedicated to reputation risk.

The main issues highlighted can be summarised as follows:

- Reputation risk awareness;
- Leadership from the top;
- Early warning of emerging reputation risks; and
- Measurement of reputation risk.

The challenge includes: measuring an organisation's reputation status; monitoring future influences; anticipating the financial impact of reputation risk ; and proactively managing the situation.

This requires establishing:

- Consistent measurement of reputation;
- Financial indicators of future loss or gains;
- Event and issue monitoring; and
- Pro-active "situational" management.

INTRODUCTION AND BACKGROUND | Regulation

Managing and measuring reputation risk is now a regulatory requirement ...

Key Requirements

- “A bank is also **exposed to reputation risk**, as its ability to underwrite new business is heavily reliant on the standing of the reputation of the firm. A bank may consider the impact on its financial position of legal disputes which **damage its reputation**”.
- The ICAAP requires **a comprehensive assessment of risks** (all material risks to be included), with consideration of **other risks, such as reputation and strategic risk**.
- “... A firm should develop and adopt an internal validation methodology of its operational risk measurement system and management processes that takes into account **changing market and operating conditions of the firm...**”.
- “...A firm’s firm-wide assessment methodology must capture **key business** environment and internal controls factors than can change its operational risk profile”.

Industry Comments

- There appears to be an assumption that qualitative risks such as reputation risk or strategic risk must necessarily be factored into a Pillar 2 capital calculation; but these risks are by nature **not only not quantifiable but also not “coverable” by capital...**
- Although these risks are formally excluded from Pillar 1, the underlying issues behind them, to the extent quantifiable, are **largely covered by Pillar 1** (including OR requirements). In most cases, requiring additional capital for reputation or strategic risk will add capital cost with no meaningful prudential benefit.
- For some material risk types like reputation risk it is not meaningful to develop a stress testing on top of a stress-test-based capital model.
- Reputation risk, whilst material, could be **managed by having appropriate systems and controls** in place to, for instance, ensure new product approval processes are robust.

CSSF has specifically highlighted reputation risk as a significant risk to be addressed by institutions operating within its jurisdiction (e.g., CSSF 07/301, Pillar II FAQ)

INTRODUCTION AND BACKGROUND | Definition of reputation risk

A key challenge in measuring reputation risk is to first define what it is...

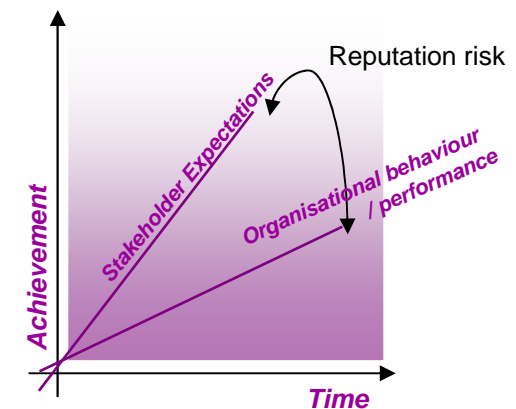
“There’s no such thing as reputation risk ... rather all risks may have an impact on an organisation’s reputation” Dr Jean Paul Louisot

Reputation Key Characteristics:

- Whilst reputation is intangible, it is potentially a valuable asset;
- Reputation is a wider **concept than** brand;
- Reputation takes year to build, but can be destroyed overnight; and
- Reputation risk can arise from any part of the organisation or outside.

There is a view that an organisation must remain in tune with its stakeholders which leads to the following definition for reputation risk:

“reputation risk arises from the failure to meet stakeholders’ reasonable expectation of an organisation’s performance and behaviour” Reputation Risk, A Question of Trust, Derek Atkins, Ian Bates & Lynn Drennan 2006



INTRODUCTION AND BACKGROUND | Luxembourg

In presenting today, we have tried to take account of the key characteristics of the Luxembourg market...

Luxembourg - a safe and stable environment (politically and financially) with a reputation for being a well-regulated and “honest” banking centre.

- Fund administration - because of the significance of fund administration to the economy of Luxembourg, reputation issues can have a considerably worse effect in Luxembourg than in a country with a diversified economy.
- Private banking: -
 - Business is largely reputation driven over and above returns and other considerations;
 - Because of the significance of private banking to the economy of Luxembourg reputation issues can have a considerably worse effect in Luxembourg than in a country with a diversified economy;
 - Because of the strict banking secrecy laws, if institutions are attacked by external parties, it is very difficult for institution's to defend their actions

Past events (BCCI, client information leakage...) have led the regulators to closely manage the country reputation risk.



Reputation Assessment & Measurement

John Browne, evolve24

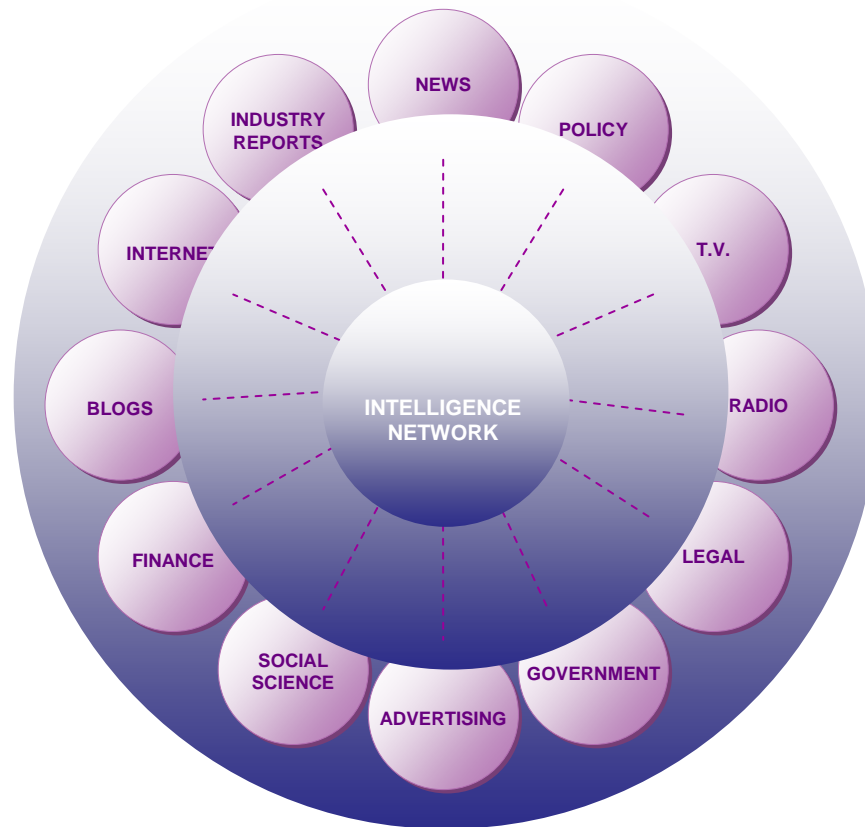
- **Evolve24 process**
 - Data sources
 - Algorithms
 - Outputs - risk quantification and correlations
- **Summary**

REPUTATION ASSESSMENT AND MEASUREMENT | Data Sources

Data sources have significantly evolved in recent years and, in many ways, they support the drawing of a more accurate measure of reputation.

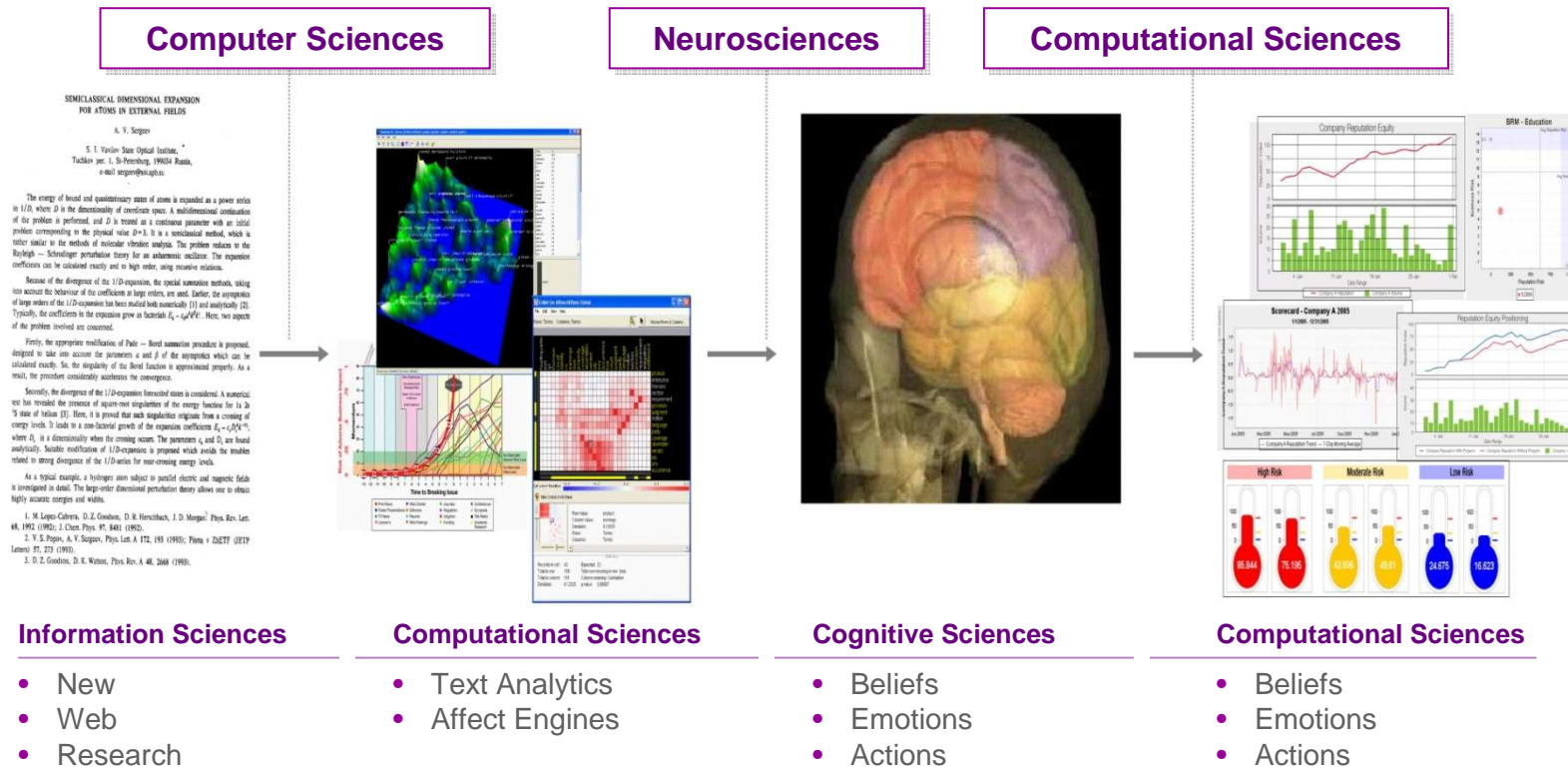
Information landscape:

- Composition of Local, Regional and Global sources
- Credibility and Influence of source and commentator



REPUTATION ASSESSMENT AND MEASUREMENT | Techniques

Similarly, new techniques have been developed that also support the quantification of reputation measures.



REPUTATION ASSESSMENT AND MEASUREMENT | Risk Factors

Firstly, however, it is crucial to understand the inherent reputation risk factors and weigh these by credibility of commentator and interconnections.

Untrustworthy sources

- Few benefits
- Involuntary

Not controllable

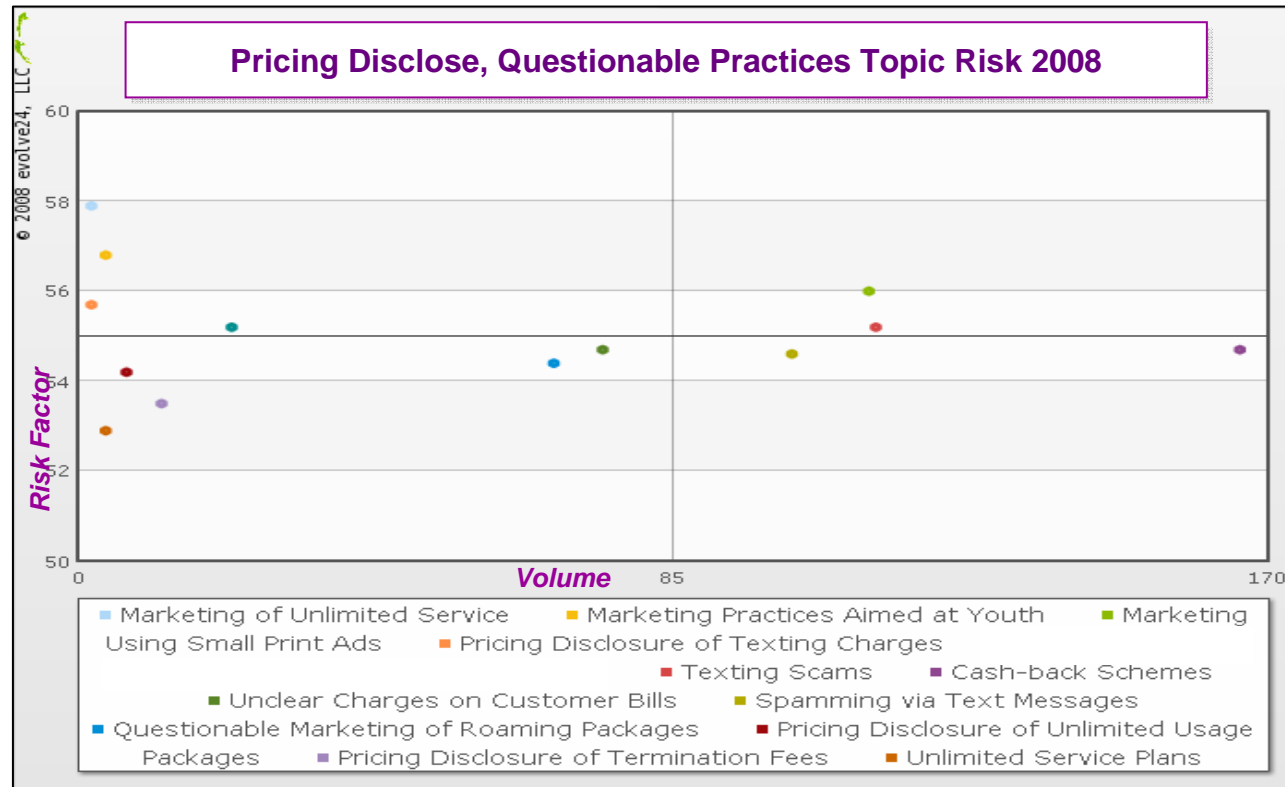
- Unfair
- Catastrophic
- Man-made
- Unfamiliar
- Dreaded
- Uncertain

Vulnerable populations

- Memorable
- Unethical
- Mixed non-verbal messages
- Unresponsive
- High media attention potential
- Victims identifiable
- Delayed effects
- Effects irreversible

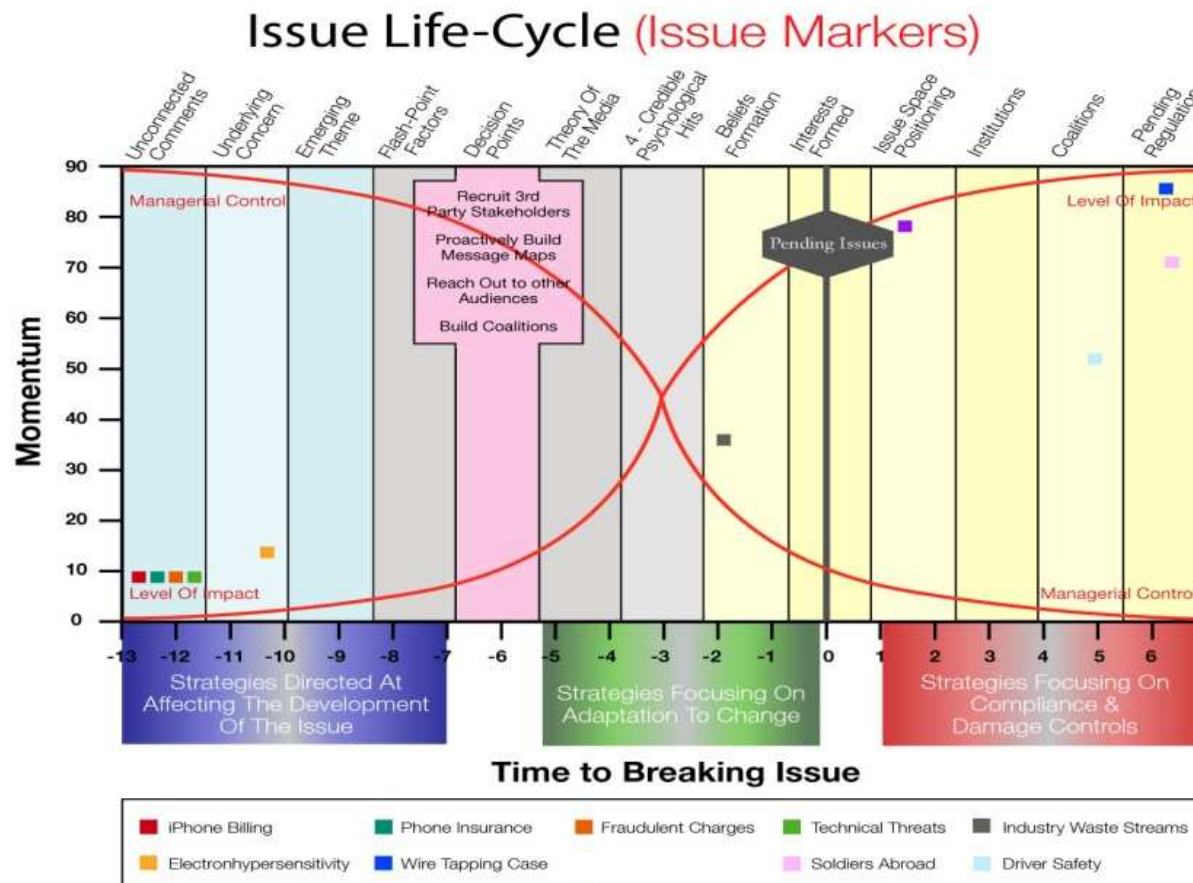
REPUTATION ASSESSMENT AND MEASUREMENT | Reputation Risk and Volume

High reputation risk can occur at low volumes.



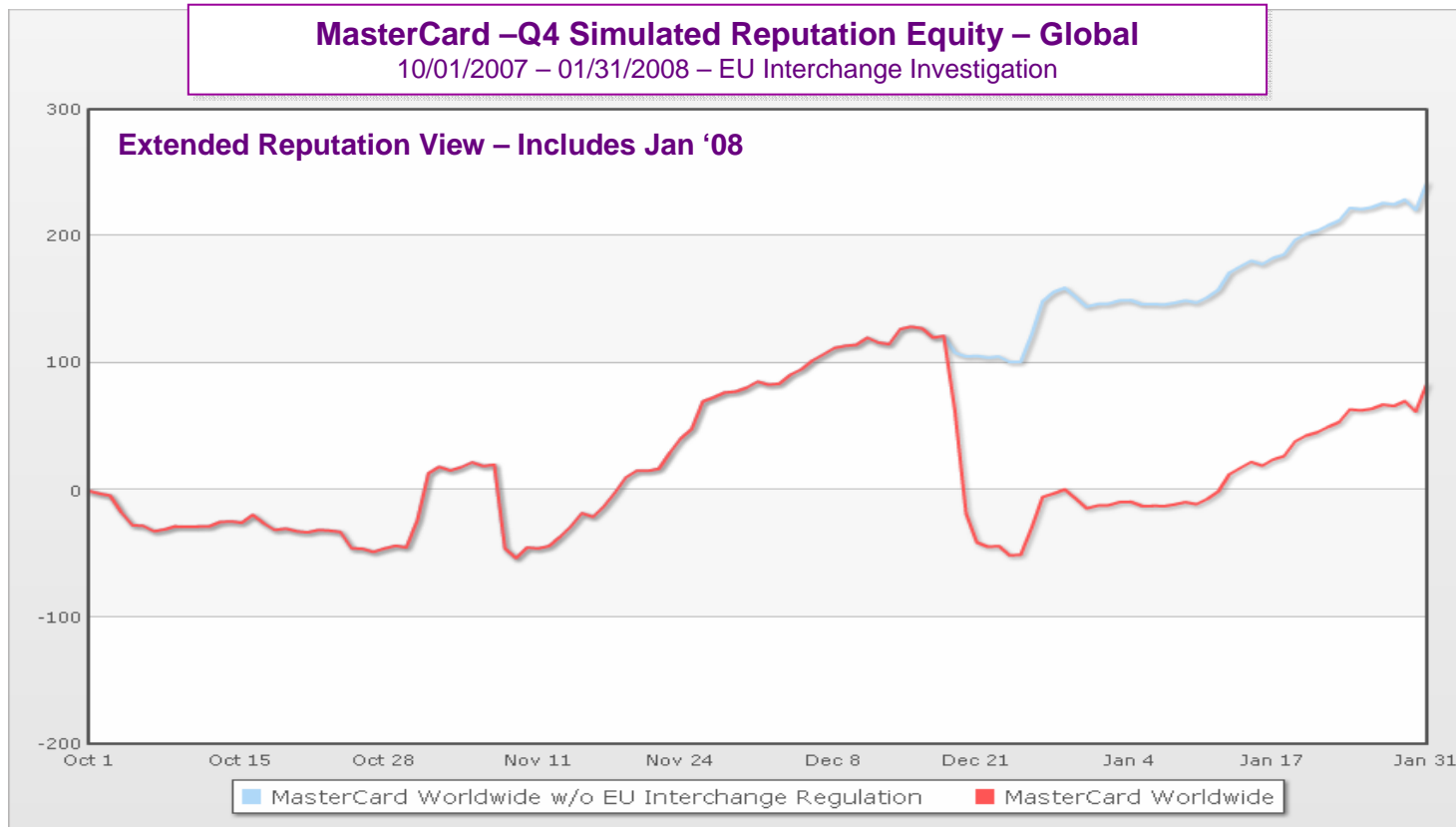
REPUTATION ASSESSMENT AND MEASUREMENT | Early warning indicators

A thorough analysis of the data provides an early identification of issues and warning indicators for reputation threats.



REPUTATION ASSESSMENT AND MEASUREMENT | Impact of Reputation Risk

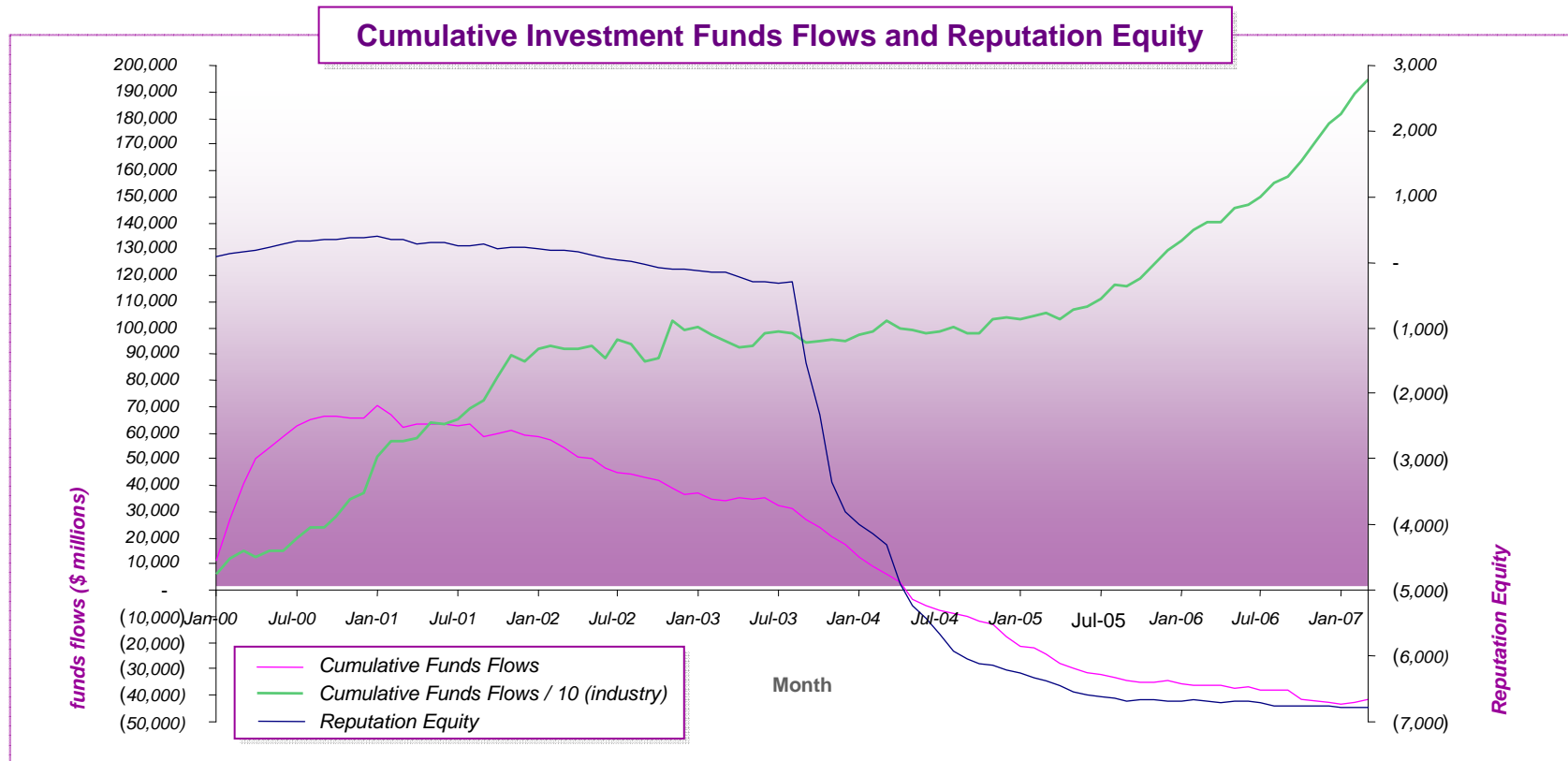
In Q3 and Q4/2007, two news items significantly corroded Mastercard reputation equity ...
... with the impact on its reputation carried forward well into 2008.¹



¹ Reproduced with permission of Mastercard

REPUTATION ASSESSMENT AND MEASUREMENT | Reputation and Investment Fund Flow

More relevant to the Luxembourg market, a recent study has ascertained the relationship that exists between evolve24 reputation score and the investment fund flows



REPUTATION ASSESSMENT AND MEASUREMENT | Country Reputation Risk

The risk of reputation is even more relevant when assessed at country and systemic level.
The country reputation risk can be assessed as follows in three stages:

STEP 1 – Diagnose the current state of reputation risk – (the stakeholders and the issues)

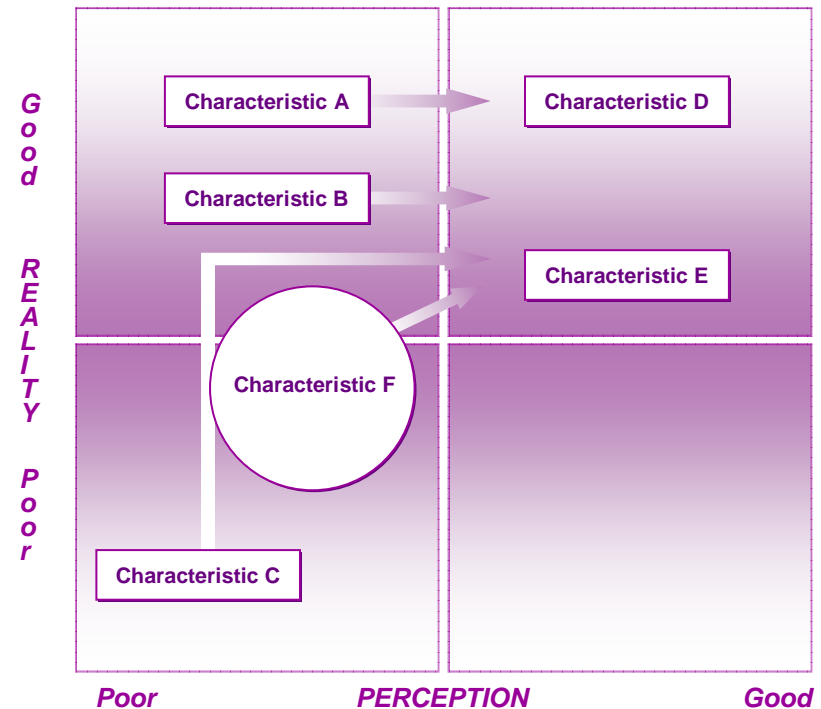
- Interdependence
(reputation of organisations and Luxembourg)
- Identity analysis (the internal view)
- Image analysis (the external view)
- Coherence analysis (gaps between the two views)

STEP 2 – Design the future state

- Strategic analysis (Luxembourg's business objectives, position among peers and the options available)
- Competitor analysis (and sources of Luxembourg's competitive advantage)

STEP 3 – Manage the transition

- The Reality / Perception matrix
- Task force involvement
- Internal change
- Information campaign



SUMMARY OF KEY POINTS

- The tools do exist to identify and track emerging issues from a very early stage.
- You can quantify reputation, track it over time and correlate it with business performance.
- Best practice exists to understand reputation risk in a country context.
- The analytical tools are peer-reviewed and the databases are in place.



Reputation Risk Measurement and Stress Testing

Gerald Ancia, advantage Capita

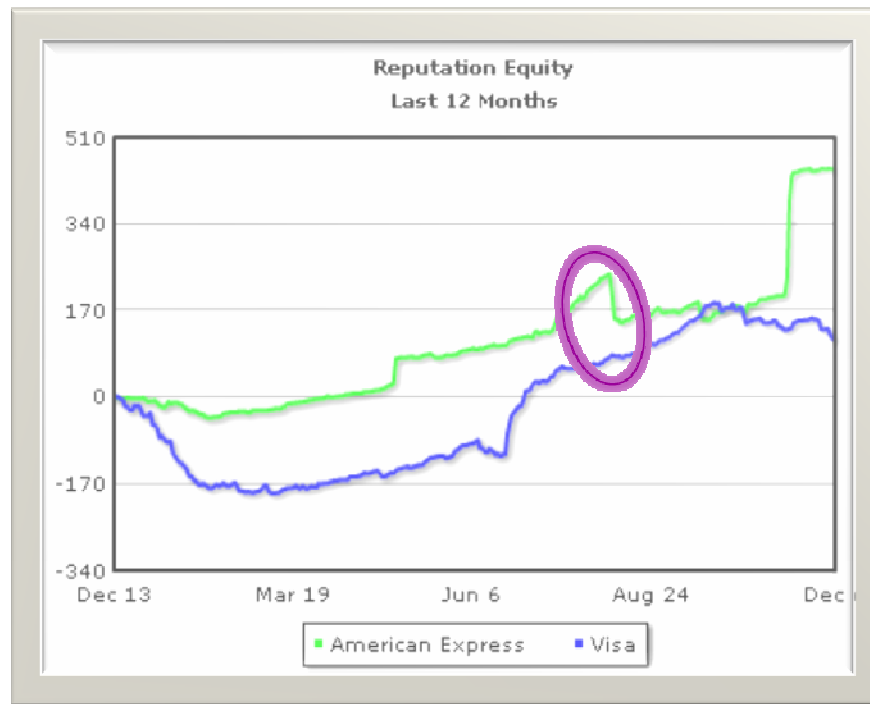
REPUTATION RISK MEASUREMENT & STRESS TESTING | Current state

- In most organisations, reputation risk is seen as the “biggest risk”. It may be managed via public relations. The main learning point is that reputation risk is not solely a PR exercise. Leading companies see reputation as risk management.
- In many cases, there is lack of integration between Risk and PR functions in managing reputation risk. The Risk function tends to concentrate on the “core risks” such as operational, credit and market and the measurement of the direct losses while PR functions deal with reputation management.
- Some organisations have implemented specific mechanisms to measure the number of reputation-relevant articles. Others have introduced some elements of measurement of indirect financial losses suffered from operational failures. They have introduced non-financial criteria and have started capturing events or near-misses that are significant for non-financial reasons.
- **More and more companies are now trying to quantify reputation and its risks and seeking to pick up issues as early as they emerge (and not when they are reported), with PR departments beginning to work with Risk management, sharing data and responses. This is key to conducting meaningful scenario analysis and stress testing...**

We are suggesting a 3-Step measurement framework to significantly improve the above deficiencies.

REPUTATION RISK MEASUREMENT & STRESS TESTING | Measurement Framework

STEP 1 – Analyse the historical drops in or improvements to an organisation's reputation equity¹ and identify the significant events that influence those changes the most.



Source: evolve 24 analysis

¹ *avantage draws on the analysis performed by evolve24 and the reputation equity curve*

ANALYSE REPUTATION EQUITY CURVE

Pick a time-period during which there are "consistent" drops in reputation equity

EVENT /RISK FACTORS DRILL-DOWN

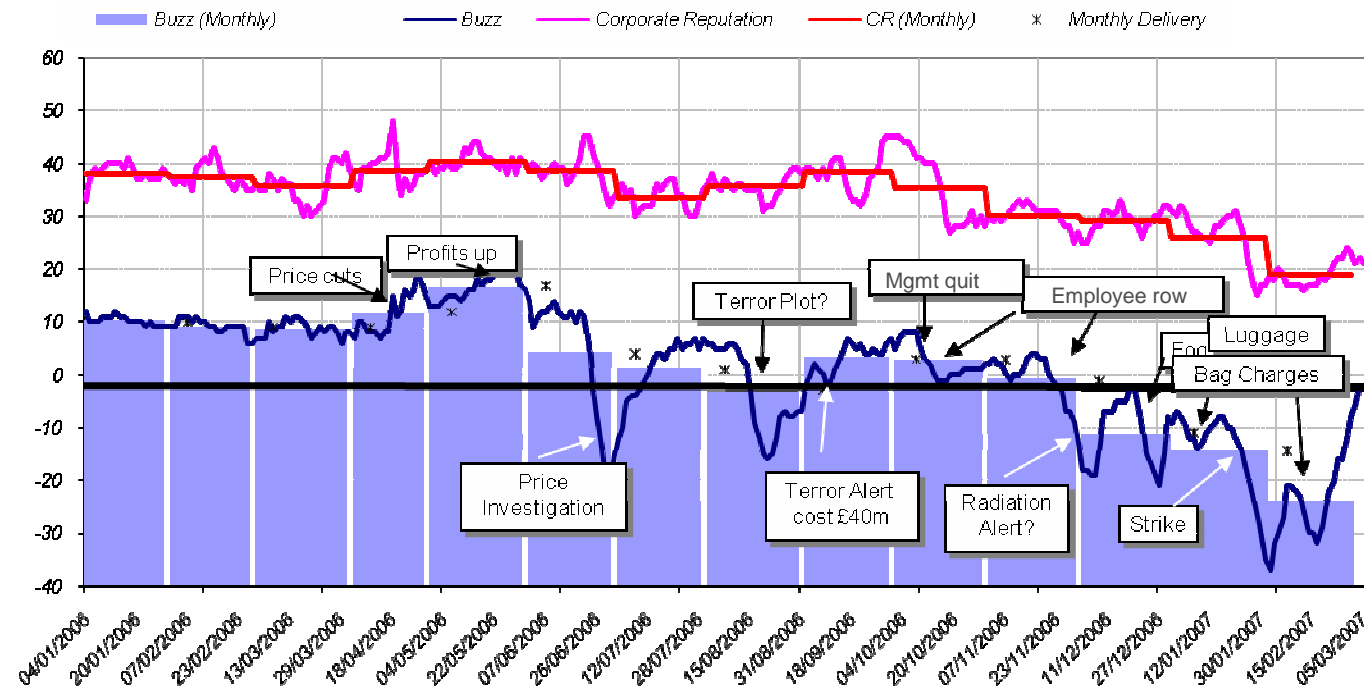
Drill down to events / issues that have caused the movements in reputation equity. Some events will be significant, others will be noise

DRILL-DOWN TO CAUSES

Events / issues drive movements in reputation equity based upon risk factors and the belief formation of stakeholder groups.

REPUTATION RISK MEASUREMENT & STRESS TESTING | Measurement Framework

An example analysis – review of events affecting the most various measures of reputation.



Source: YouGov, BrandIndex Analysis

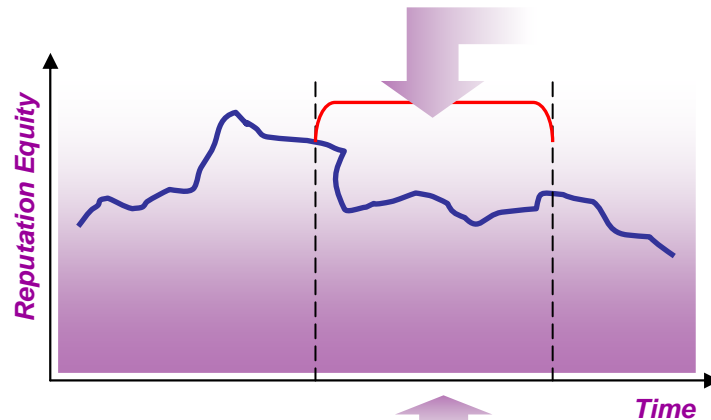
STEP 2 – In order to effectively measure the risk of reputation, the reputation equity curve (or any alternative measures) should be correlated to meaningful financial KPIs.

- It is important to discover meaningful KPIs to correlate with reputation equity¹ and capture indirect losses.
- Direct losses occur due to first tier risks (operational, credit, market etc.). Indirect losses on the other hand, occur due to issues / events that corrode an organisation's reputation (a secondary risk that can overwhelm the primary risks).
- For example, an issue that started off as an operational event can lead to subsequent events which lead to falls in reputation equity and a drop in a KPI such as Net Income (due to customer attrition, reduced volume of business etc.). This can cause a deviation of actual from expected net income; thereby leading to foregone revenues (a measure of indirect losses).
- An important KPI for banks is Net Income and for fund managers/administrators is flow of funds. Tracking these changes individually can lead to a better understanding of indirect losses. Such KPIs might require further breakdown to Net Interest Income (NII), Commission, Fees, Trading income etc.

¹ Re-using evolve24 reputation equity curve or other meaningful measure of reputation.

REPUTATION RISK MEASUREMENT & STRESS TESTING | Measurement Framework

Correlating in time, movements in reputation equity to drivers of revenue (or other KPIs) when compared with expected performance allows an assessment of indirect losses (over time).



CAPTURE AMPLITUDES & EVENT CYCLE LENGTHS

Groups of causes and events work together to corrode reputation through time. It is important to understand the magnitude of the impacts and the time taken. This enhances cause / event profiling for stress testing.

SELECT ANALYSIS TIME PERIOD

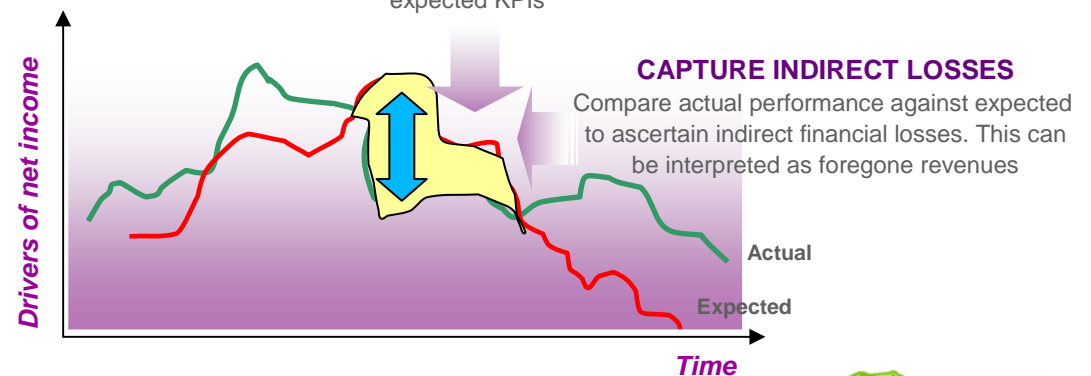
Select time period during which there is a sustained drop in reputation equity. Track KPIs before and after this to account for leading and lagging effects

SELECT KPIs

Ascertain the correct KPI to use; for example the drivers of net income

OBTAIN KPI EXPECTATIONS

For the selected time period obtain expectations (historical) for the drivers of net income; indirect losses are driven by the deviation of actual KPIs from expected KPIs

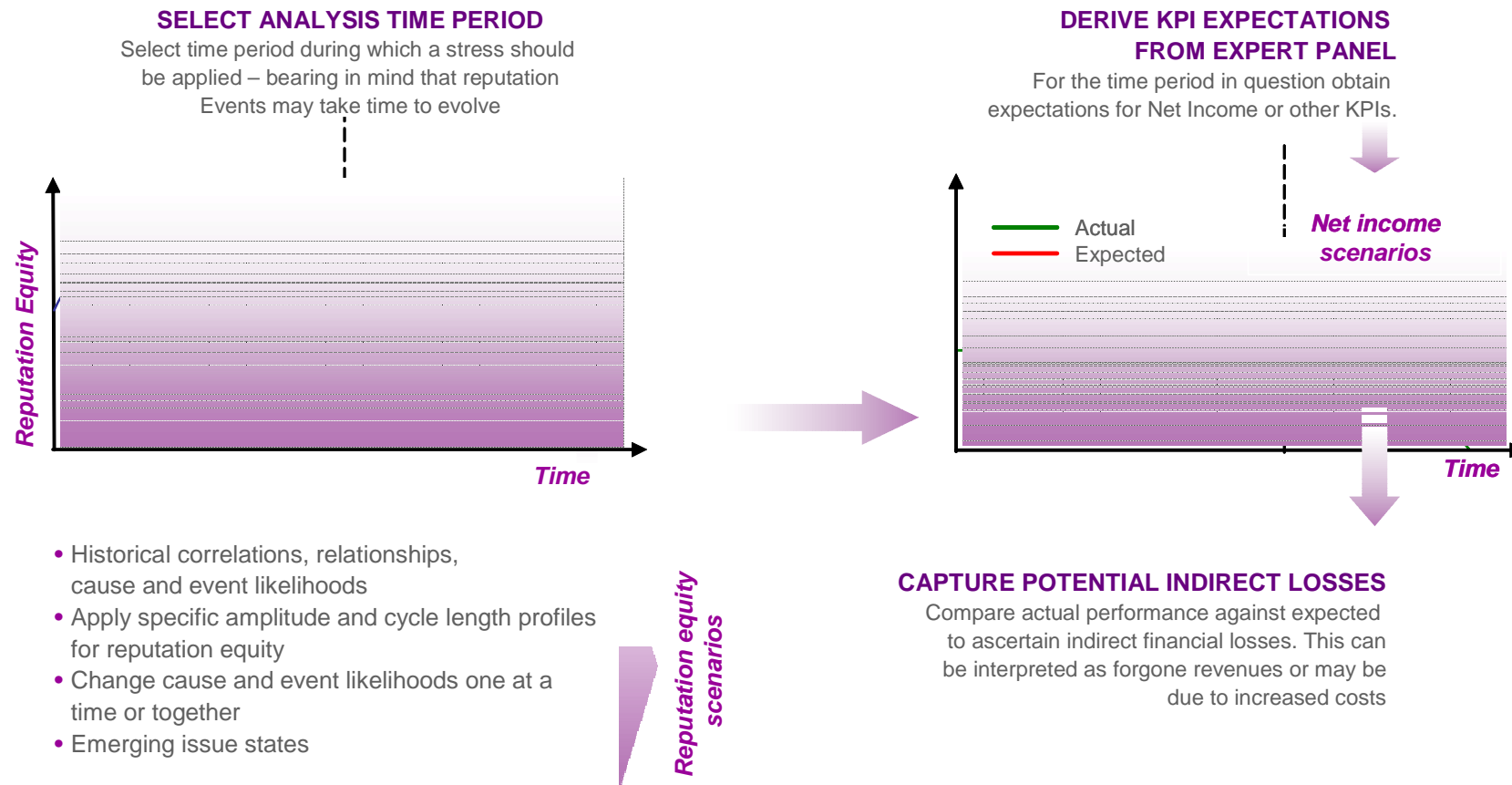


CAPTURE INDIRECT LOSSES

Compare actual performance against expected to ascertain indirect financial losses. This can be interpreted as foregone revenues

REPUTATION RISK MEASUREMENT & STRESS TESTING | Measurement Framework

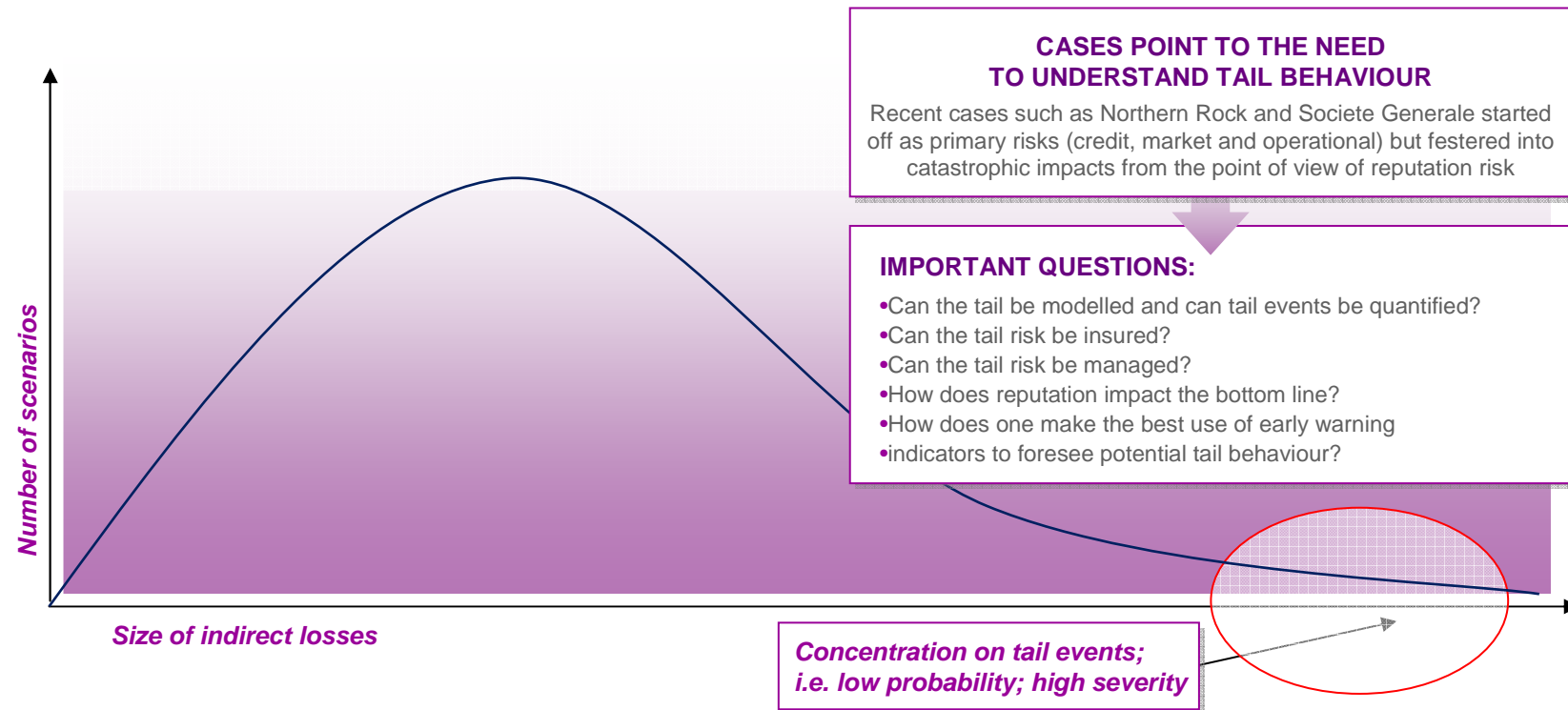
Step 3 – Various modelling techniques can be used to stress test the causes and consequences.



- Historical correlations, relationships, cause and event likelihoods
- Apply specific amplitude and cycle length profiles for reputation equity
- Change cause and event likelihoods one at a time or together
- Emerging issue states

REPUTATION RISK MEASUREMENT & STRESS TESTING | Measurement Framework

Reputation risks are mostly progressive and corrosive and often emerge as tail-event (i.e. catastrophic) problems arising from primary risks.



Its impact on the capital requirement (if any) can be better understood through effective stress testing that involves gaining a better understanding of tail events both in isolation and in combination.

SUMMARY OF KEY POINTS

- The reputation risk measurement framework re-uses evolve24's tested and proven cognitive and behavioural approaches to reputation measurement. The key outputs of the framework are:
 - A distribution of indirect financial losses which is used to measure reputation risk exposure. The framework provides backward-looking, forward-looking and simulation-based views on reputation risk.
 - A detailed drill down on strategic issues / events; combined with calculated frequencies and correlations can be utilised to enhance capital calculations and reputation risk management.
 - Linking movements of reputation equity to key business metrics such as market price and net income provides a better understand the dynamics of reputation risk.
- Should it be used for capital adequacy assessment? It certainly provides a valid tool for stress testing purposes but its outputs should not necessarily lead to an additional capital charge.

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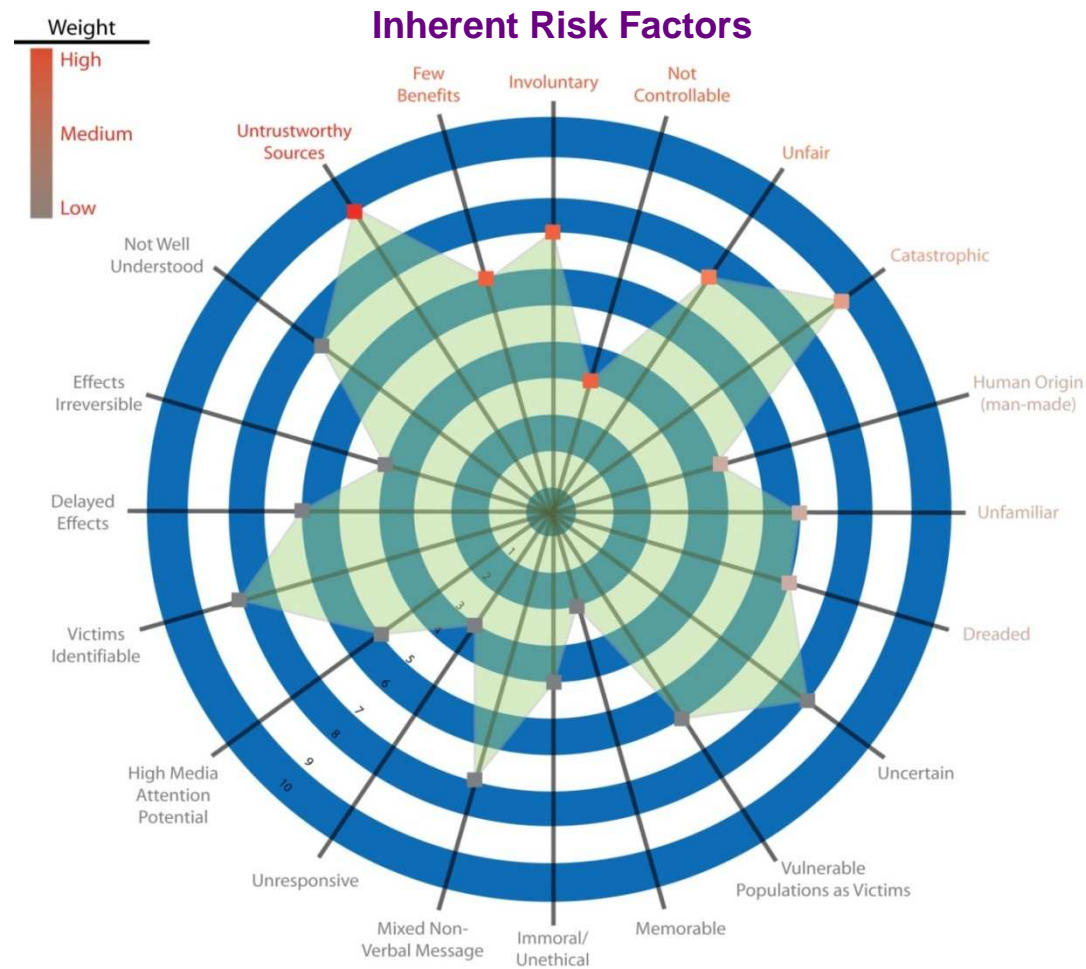
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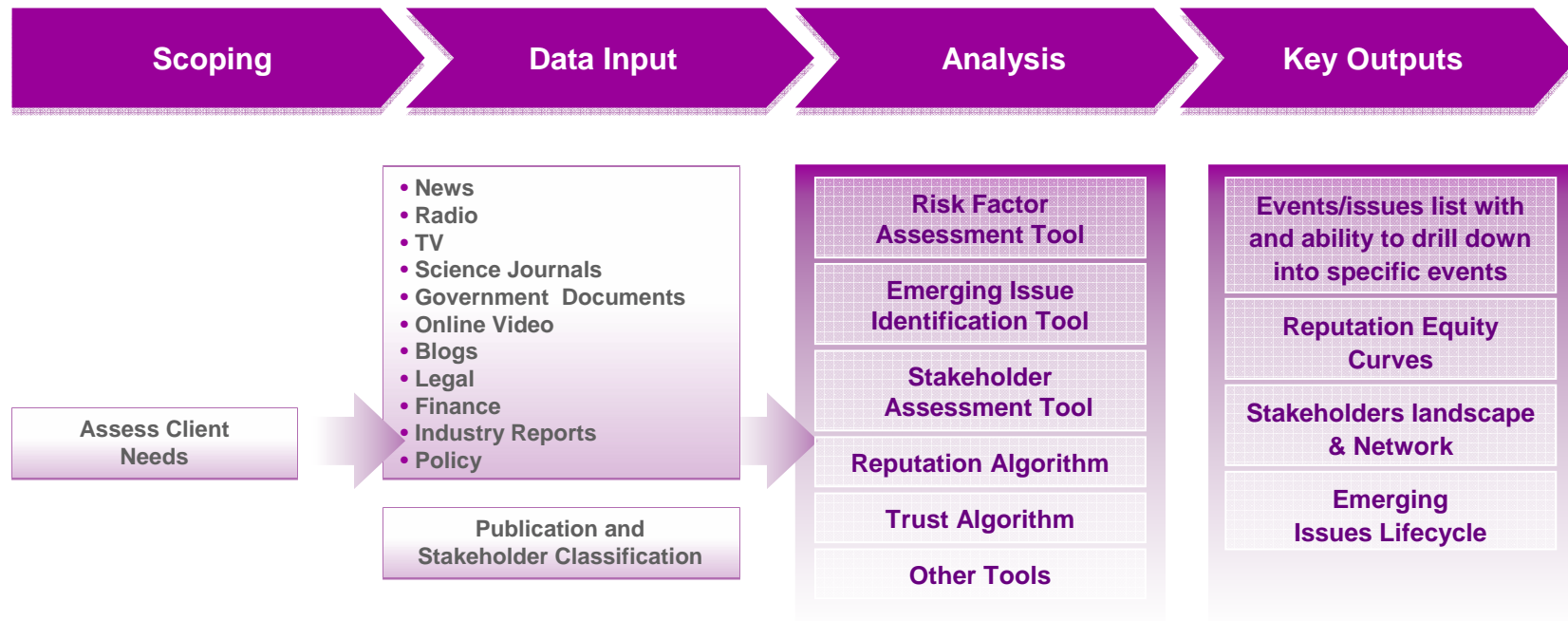
Appendix

APPENDIX | Risk Factors



APPENDIX | Reputation Equity Curve

The organisation's reputation equity curve is developed by applying cognitive and behavioural science, identifying those key events/issues that impact the most the reputation



The key outputs provide some accurate, quantitative indicators of the state and trends of perceptions, risks and concepts. The indicators incorporate research on how beliefs and perceptions are formed and influence the organisation's reputation

APPENDIX | The Evolution of Reputation Risk

<i>Issue Maturity Stage</i>	<i>Media Phase</i>	<i>Characteristics</i>
Latent	Unconnected comments Underlying concern Emerging themes	<ul style="list-style-type: none"> • Activists and NGOs become aware of the issue and look across industries for similar occurrences. • There is either no scientific or medical evidence or this is weak and disputed. • The issue is largely ignored or dismissed by the business community – it is treated as an unknown unknown or an issue that will disappear.
Emerging	Flashpoint factors Early decision points Credible psychological hits	<ul style="list-style-type: none"> • There is increasing political and media awareness of the issue. • Activists and NGOs raise the issue with regulators • A small number of commentators emerge with a deep interest. They may form a social network and cross-reference each other. • There is an emerging body of research although the data may still be disputed. • Leading companies in the sector experiment with strategic approaches to deal with the issue. Initially, these approaches are often defensive or focused on emphasising compliance with regulations or industry codes of practice. • Opportunities exist for reputational advantage or risk mitigation. • The issue may fade away at this stage but should remain on the company's issue scan.
Consolidating	Beliefs formation Positioning of interests Mass media interest	<ul style="list-style-type: none"> • There is an emerging body of research and business practices about the issue. • Sector-wide and issue-based voluntary initiatives are established. Voluntary standards are in place and collective industry action occurs often through trade associations or small groups of leading companies. • Litigation by “victims” is likely and a widespread view of the need for legislation.
Institutionalised	Institutions Coalitions Pending regulation	<ul style="list-style-type: none"> • Legislation or business norms have become established. • The embedded practices are a normal part of a business excellence model.